REMARKS

Claims 1-35 are pending in the application. In the Office Action mailed October 10, 2001, a defect in the Declaration was noted. Further, the drawings were objected to under 37 C.F.R. § 1.83(a). Claims 1-35 were rejected under 35 U.S.C. § 112, first paragraph. Claims 1-13, 21, and 24-35 were rejected under 35 U.S.C. § 112, second paragraph. Claims 1, 2, 10, 12, 14, 21, 25, and 32 have been amended above to clarify the invention.

In view of the above amendments and the remarks set forth below, applicants respectfully request reconsideration and submit that all claims are now in condition for allowance.

Before distinguishing the issues of the Office Action, applicants briefly summarize at least one embodiment of the present invention. The exemplary embodiment is generally directed to a connector that includes a conduit having open ends. Each end of the conduit is adapted to receive an end of a first cable, wherein the conduit includes a hollow interior to permit passage of fluid therethrough. The forward tight seal is formed between the first conduit and the first cable capable of holding at least 30 psig of internal pressure and a fluid having a viscosity of less than or equal to 100 centipoise. Such a connector is generally recited in amended, independent Claims 1, 14, and 25.

Within the specification, CABLECURE® is disclosed as an example of a silicone fluid that can be injected into cable 38. Page 8 lines 19-21. Referring to the included affidavit of Glen J. Bertini, the trade name CABLECURE® is covered by at least U.S. Patent No. 5,372,841, issued to Kleyer et al. Kleyer et al. disclose that CABLECURE silicone fluid has an initial viscosity at 25°C of less than 100 centipoise. Accordingly, as described in the specification and known in the art, CABLECURE® silicone fluid has an initial viscosity at 25°C of less than 100 centipoise. Thus, the claims of the present application are generally directed toward a

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connector that is capable of forming a fluid tight seal that can hold at least 30 psig of internal pressure and a fluid having a viscosity of less than or equal to 100 centipoise.

Defective Oath/Declaration

The Office Action sets forth a requirement for a new oath or declaration in compliance with 37 C.F.R. § 1.67(a) because the original was deemed defective due to a non-initialed alteration concerning the residence of the inventor Stag. Applicants acknowledge with regret this error and will submit a new oath in compliance with 37 C.F.R. § 1.67(a) with the next communication with the Patent Office.

Objections to Drawings

The drawings stand objected to under 37 C.F.R. § 1.83(a). This objection relates to Claims 13, 24, 34, and 35, which have been canceled from the application. Further, applicants have amended the specification and drawings for further clarification. No new matter has been entered. Applicants regret these oversights. Applicants respectfully request approval of the foregoing revisions to the illustrations by the Examiner and entry of the revised illustrations into the present application. As a result, applicants respectfully submit that the objection to the drawings under 37 C.F.R. § 1.83(a) has been overcome.

Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 1-35 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, were in possession of the claimed invention. Particularly, the Office Action sets forth the position that the specification does not provide support for the claimed subject matter of "a fluid having a viscosity of less than or equal to 1000 centipoise." Claims 1, 14, and 25 have been amended to include "the fluid having a viscosity of less than or equal to 100 centipoise." Support for this element can be found

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in the specification, wherein CABLECURE® is disclosed as an example of a silicone fluid that can be injected into cable 38. Page 8 lines 19-21. Referring to the included affidavit of Glen J. Bertini, the trademark CABLECURE® is covered by at least U.S. Patent No. 5,372,841, issued to Kleyer et al. Kleyer et al. disclose that CABLECURE silicone fluid has a viscosity at 25°C of less than 100 centipoise. Accordingly, the viscosity of CABLECURE® is well known to one of ordinary skill in the art to be less than 100 centipoise. Consequently, applicants respectfully submit the specification provides support for the subject matter of Claims 1, 14, and 25 as amended above to include "a fluid having a viscosity of less than or equal to 100 centipoise."

The claims also stand rejected under 35 U.S.C. 112, first paragraph, for failing to describe "the fluid tight seal can hold at least 30 psig of internal pressure." Applicants respectfully disagree. As discussed above, CABLECURE® is disclosed as an example of a silicone fluid that can be injected into cable 38. Page 8 lines 19-21. CABLECURE® is injected into the cable by flowing the CABLECURE® through an orifice in the connector and into the hollow portion of the connector. Page 8 lines 24-27. Inside the hollow portion, the CABLECURE® contacts cable strands of the cable, passes out of end of the cable connector, and *travels* into the cable for a predetermined distance. *Id.* There are two main classes of underground electrical cables, feeder and URD cables. Page 2 lines 25-29.

A problem treating feeder cables with CABLECURE® is the ability of the splices to hold the pressure required to inject perhaps miles of the feeder cable with CABLECURE®, i.e., *transport* CABLECURE® through the cable for a predetermined distance. Page 2 lines 30-32. The specification discloses that it is desirable to inject CABLECURE® into longer feeder cables and their integral splices at moderate pressures (30 -120 psig) to *transport* the CABLECURE® through the feeder cable. Page 3 line 8 though page 4 lines 1-3.

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Further, the specification discloses that one goal of the invention is to provide a device or method of injecting repair chemicals (i.e., CABLECURE®) into URD cables at moderate to medium pressures without compromising the structural integrity of the splices. Page 4 lines 17-19. Moderate to medium pressures is disclosed as 120 -350 psig. Page 3 lines 5-7.

Accordingly, the specification discloses that CABLECURE® *travels* into the cable for a predetermined distance; there are two main classes of cables (feeder and URD); a moderate pressure range of 30 to 120 psig is required to transport CABLECURE® through a feeder cable; and a moderate to medium pressure range of 120 to 350 psig is required to transport CABLECURE® through a URD cable. Because the transport pressure required to transport CABLECURE® through both main classes of cables (feeder and URD) exceeds 30 psig, the specification provides support for "the fluid tight seal can hold at least 30 psig of internal pressure" of Claims 1, 14, and 25.

Accordingly, applicants respectfully request reconsideration of the rejection under 35 U.S.C. § 112, first paragraph, with respect to Claims 1, 14, and 25 and respectfully submit that the above amendment has placed these claims in condition for allowance. With respect to Claims 13, 24, 34, and 35, applicants respectfully request that these claims be canceled from the specification. With respect to dependent Claims 2-12, 15-23, and 26-33, applicants respectfully submit that the above amendment has placed these claims in condition for allowance.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1-13, 21, and 24-35 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicants regard as their invention. Numerous rejections to the claims under 35 U.S.C. § 112, second paragraph, have been set forth in the Office Action. Applicants regret the basis for these rejections and wish to thank the Examiner for the suggested clarification amendments. Each

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claim has been amended pursuant to the Examiner's suggestion. Therefore, applicants submit that the rejection of Claims 1-13, 21, and 24-35, under 35 U.S.C. § 112, second paragraph, have been overcome.

CONCLUSION

In light of the foregoing amendments and remarks, applicants respectfully submit that the present application is now in condition for allowance. Applicants respectfully request entry of the amendments and reconsideration and allowance of all claims. The Examiner is invited to telephone the undersigned attorney if there are any remaining issues.

Respectfully submitted,

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John D. Denkenberger
Registration No. 44,060
Direct Dial No. 206.695.1749

I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed envelope as first class mail with postage thereon fully prepaid and addressed to the U.S. Patent and Trademark Office, P.O. Box 2327, Arlington, VA 22202, on the below date.

Date: 4/10/02 Lindsay Sweet

JDD:pbe/lls

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VERSION WITH MARKINGS TO SHOW CHANGES MADE APRIL 10, 2002

In the Specification:

The paragraph beginning on page 11, line 24, has been amended as follows:

Referring to FIGURES 10-27, a seventh embodiment of the subject invention is shown, which includes an interior connector portion and an injection fitting portion. More specifically, referring to FIGURE 10, electrical cable sections 120 are shown after being prepared for attachment to the interior connector components of the seventh embodiment of the subject invention. Electrical cable sections 120 each include a central core 122 that is surrounded by insulation 124. Core screen 126 covers insulation 124. Shielding wires [130] 128 cover core screen 126. Oversheath 130, which is optional, covers shielding wires 128. The electrical cable sections 120 are each prepared by removing a portion of insulation 124 to expose central core 122. Also, a portion of core screen 126 is removed to expose insulation 124. Shielding wires 128 are bent away from central core to lie substantially parallel to the longitudinal axis of electrical cable section 120.

The paragraph beginning on page 14, line 13 has been amended as follows:

As shown in FIGURE 17, compression rings [48] 148, which were located on one of the two electrical cable sections 120 are moved over insulation sleeve 152 while insulation sleeve 152 is still hot from heat shrinking. One compression ring 148 is oriented at each of the two ends of insulation sleeve 152. Compression rings 148 are then heat shrunk with a propane torch, for example, onto insulation sleeve 152.

The paragraph beginning on page 14, line 25 has been amended as follows:

As shown in [FIGURE 20] FIGURES 20-22, outer sheath 146 is moved from its position over one of the electrical cable sections to cover alloy braid 164. Outer sheath 146 is heat shrunk with, for example, a propane torch, starting at the center of outer sheath 146 and working toward

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the outer edges thereof until outer sheath 146 tightly encases alloy braid 164. The above-detailed configuration of the interior connector portion of the seventh embodiment of the present invention, as shown in FIGURES 11-22, facilitates the passage of cable repair chemicals through electrical cable sections 120 while maintaining electrical conductivity between the two electrical cable sections 120.

In the Claims:

1. (Three Times Amended) A connector for a first information transmitting cable, the first information transmitting cable having an outer surface, an interior end, an exterior end, and a central conductor portion, the connector comprising:

a first conduit having open ends, [either] at least one open end of the first conduit adapted to receive the interior end of the first information transmitting cable, the first conduit including a hollow interior to permit the passage of a fluid having a viscosity of less than or equal to [1000] 100 centipoise therethrough, wherein the first conduit forming a fluid tight seal between the first conduit and a portion of the first information transmitting cable, wherein the fluid tight seal can hold at least 30 psig of internal pressure[; and].

[a second conduit having open ends, the second conduit encasing the first conduit to seal the first conduit within the second conduit.]

2. (Twice Amended) The connector of Claim 1, wherein the first conduit further comprises an injection port to provide fluid communication with the hollow interior of the first conduit and pass fluid therethrough and into the central conductor portion of the information transmitting cable.

10. (Twice Amended) The connector of Claim 1, further comprising an insulation sleeve adapted to cover the central conductor portion of the information transmitting cable,

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wherein the first conduit is located on the insulation sleeve to create a second fluid tight seal therebetween.

12. (Three Times Amended) The connector of Claim 1, further comprising a second information transmitting cable having an outer surface, an interior end, an exterior end, and a central conductor portion, the second information transmitting cable adapted to be received within [either] the other of the open [end] ends of the first conduit, wherein the first and second information transmitting cables are electric cables.

14. (Three Times Amended) A connector for repairing and connecting at least one section of a first electrical cable, the first electrical cable section having an outer surface, an interior end, an exterior end, and a central conductor portion, the connector comprising:

a sleeve having first and second open ends, a hollow interior to permit the passage of fluid having a viscosity of less than or equal to [1000] 100 centipoise therethrough and a port providing fluid communication with the hollow interior of the sleeve and into the central conductor portion of the first electrical cable, wherein the sleeve is capable of receiving and forming a fluid tight seal with the interior end of the first electrical cable, wherein the fluid tight seal can hold at least 30 psig of internal pressure[; and].

[a housing having open ends, the housing encasing the sleeve to seal the sleeve within the housing.]

21. (Amended) The connector of Claim 14, further comprising an insulation sleeve adapted to cover the central conductor portion of the first electrical cable, wherein the sleeve is located on the insulation sleeve to create a second fluid tight seal therebetween.

25. (Three Times Amended) A connector for passing repair chemicals through at least a first electrical cable, the first electrical cable having an outer surface, an interior end, an exterior end and a central conductor portion, the connector comprising:

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a cable adapter attachable to the outer surface of the first electrical cable, the cable adapter located on the outer surface at a position remote from the [exterior] interior end of the electrical cable to leave exposed a portion of the outer surface of the electrical cable adjacent the [exterior] interior end thereof;

a sleeve having a first end, a second end, a fluid injection port and a hollow interior, the first end of the sleeve adapted to fit over the exposed portion of the outer surface of the electrical cable adjacent the [exterior] interior end thereof, the second end of the sleeve adapted to fit over a conductor contact which is attached to the central conductor portion of the first electrical cable, such that the sleeve creates a fluid tight seal for passage of repair fluid having a viscosity of less than or equal to [1000] 100 centipoise into or out the fluid injection port, wherein the fluid tight seal can hold at least 30 psig of internal pressure[; and].

[a housing encasing the sleeve to seal the sleeve within the housing.]

32. (Amended) The connector of Claim 25, further comprising an insulation sleeve adapted to cover the central conductor portion of the first electrical cable, wherein the sleeve is located on the insulation sleeve to create a second fluid tight seal therebetween.

Claims 13, 24, 34, and 35 have been canceled.

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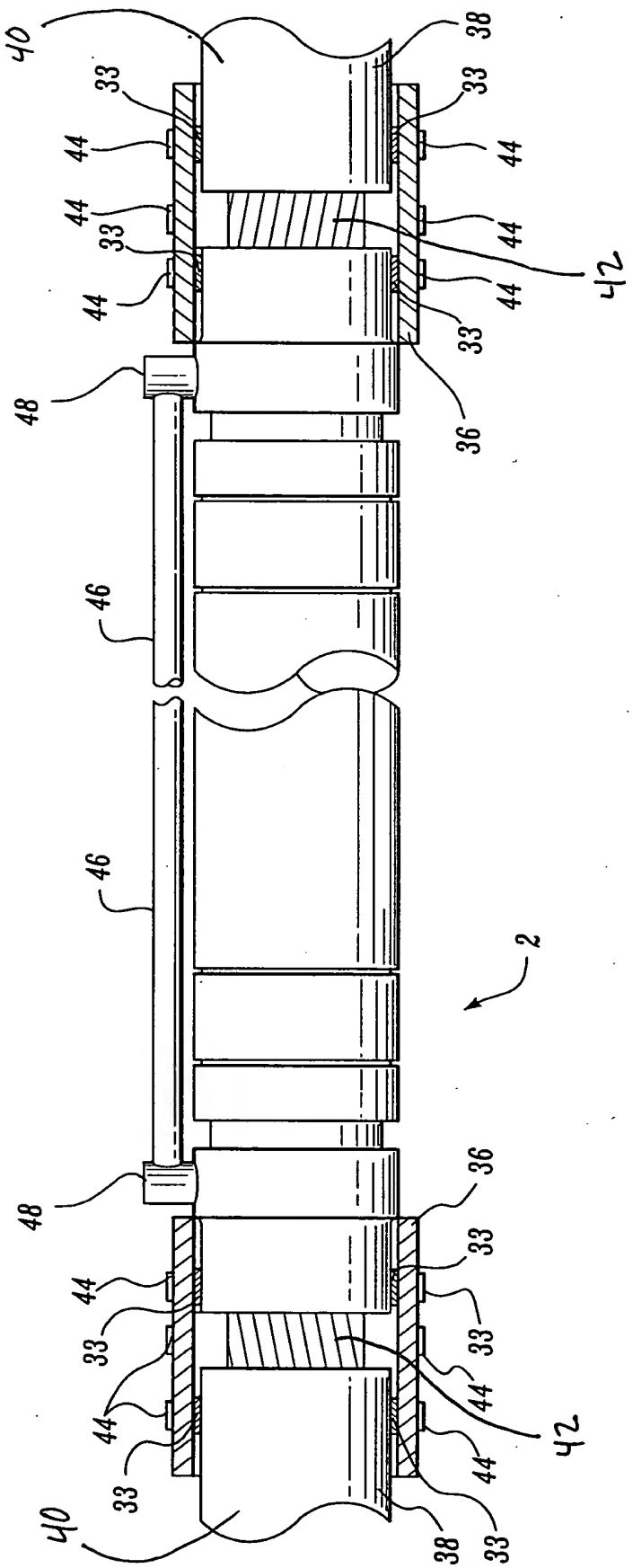

Fig. 3.

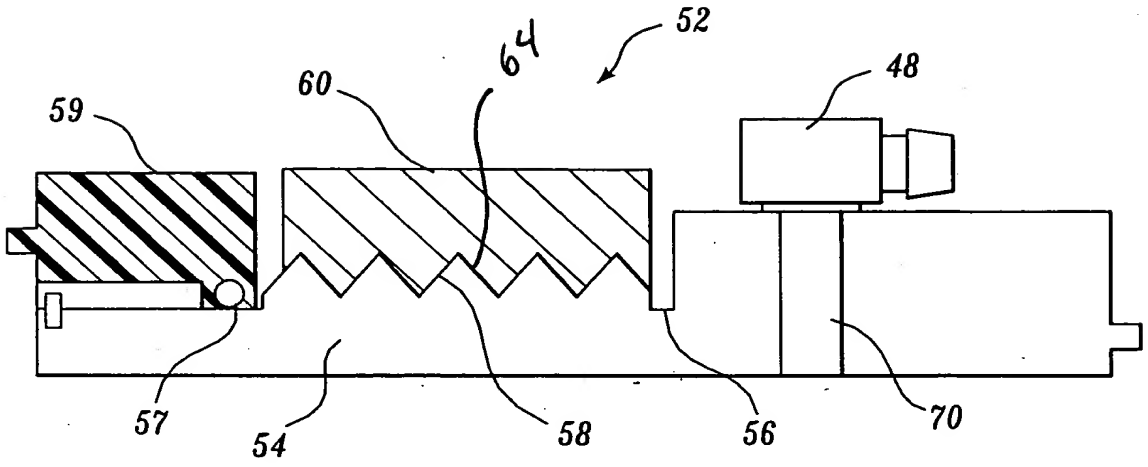

Fig. 6.

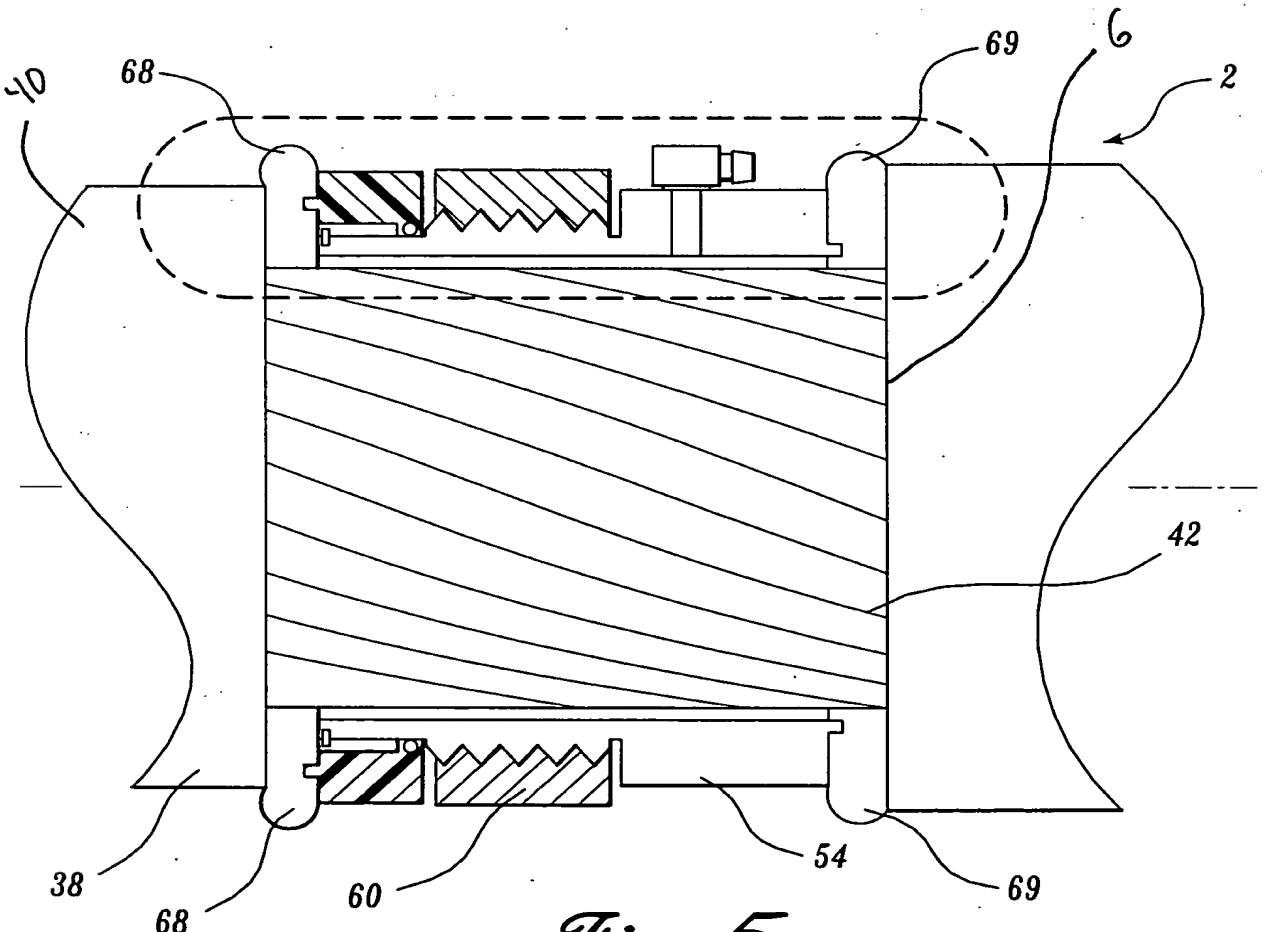

Fig. 5.

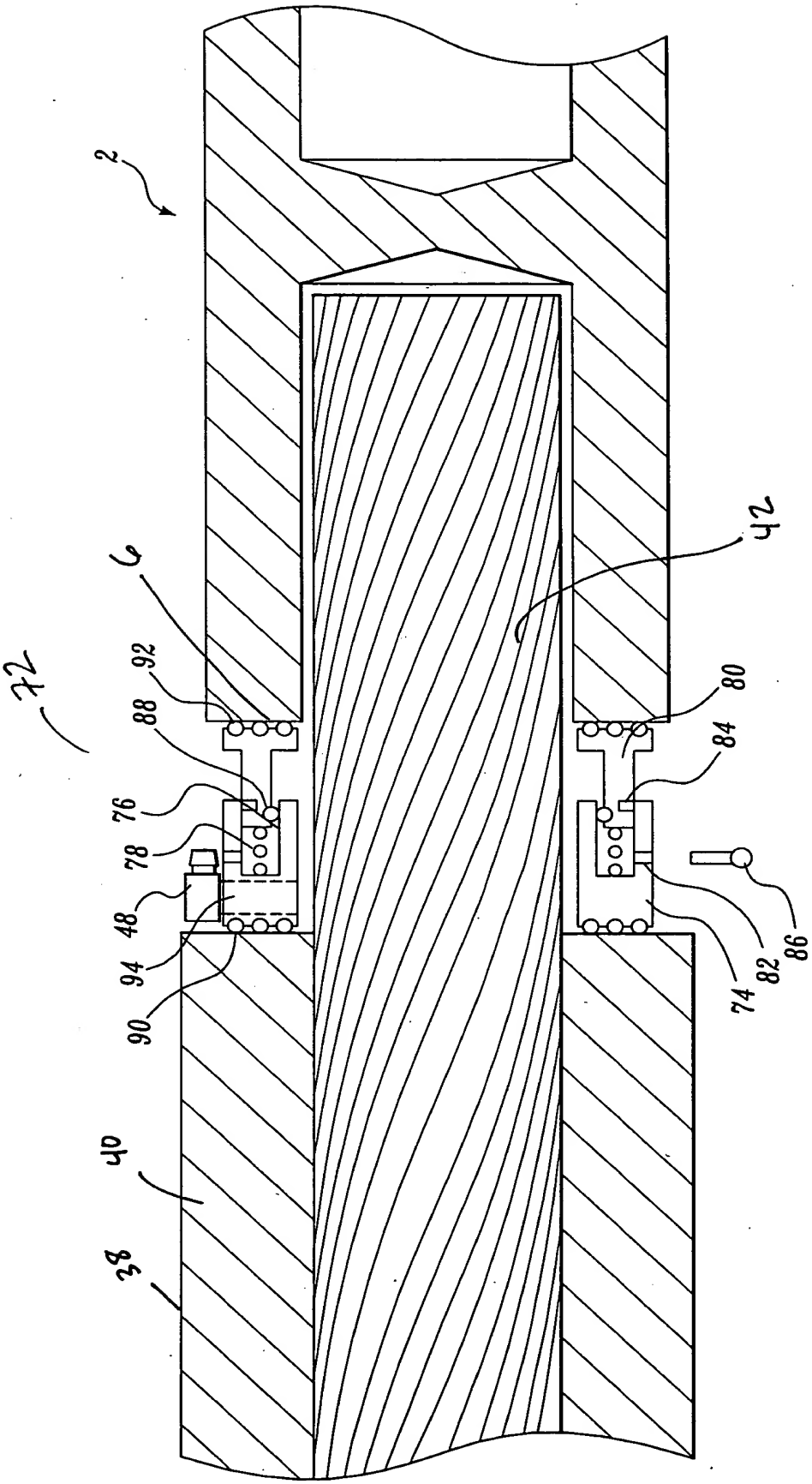

Fig. 7.

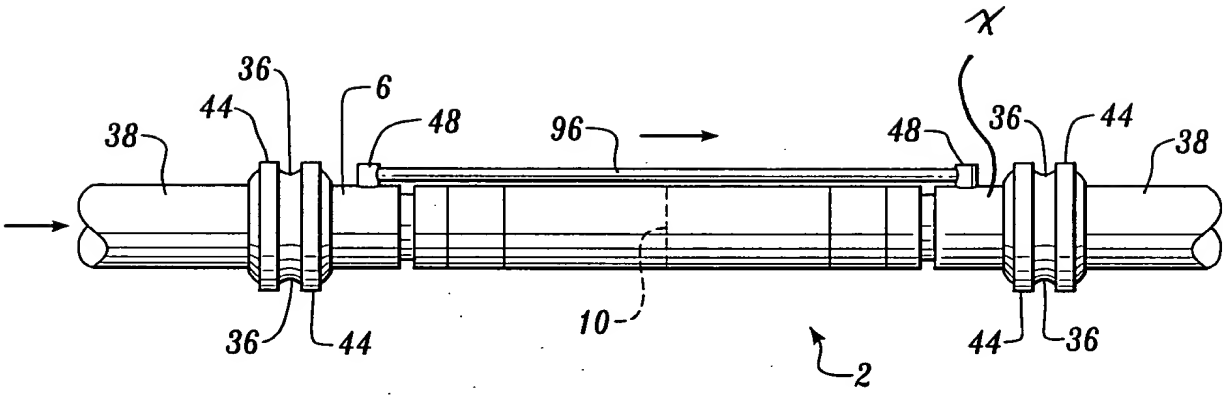

Fig. 9

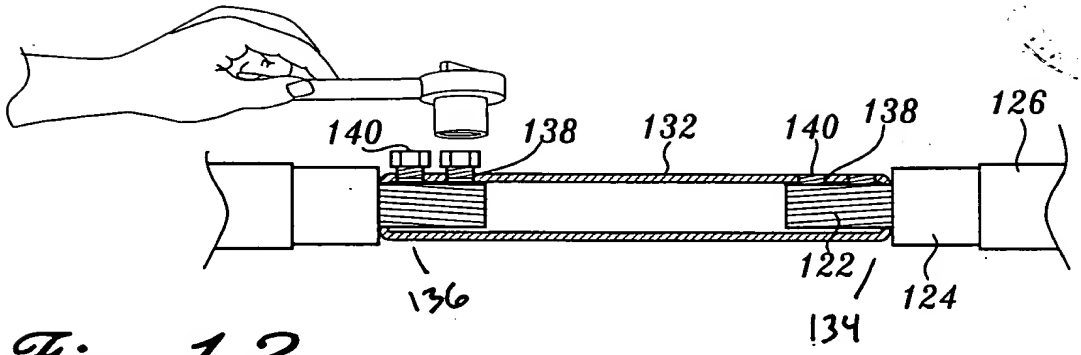

Fig. 12.

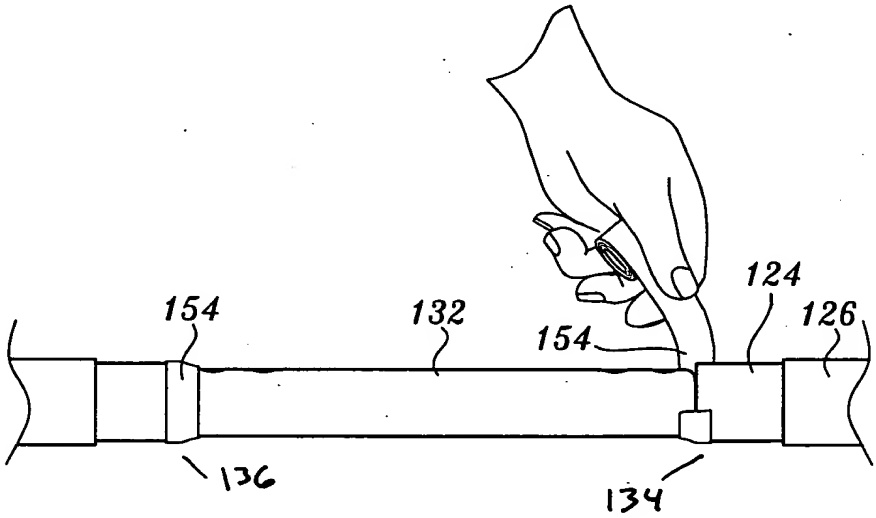

Fig. 13.

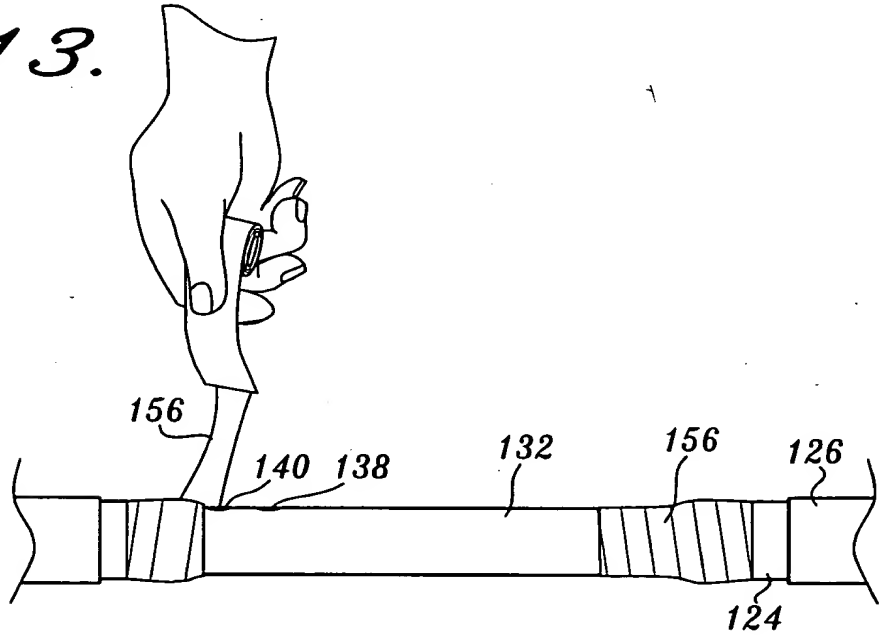

Fig. 14.

Fig. 23.

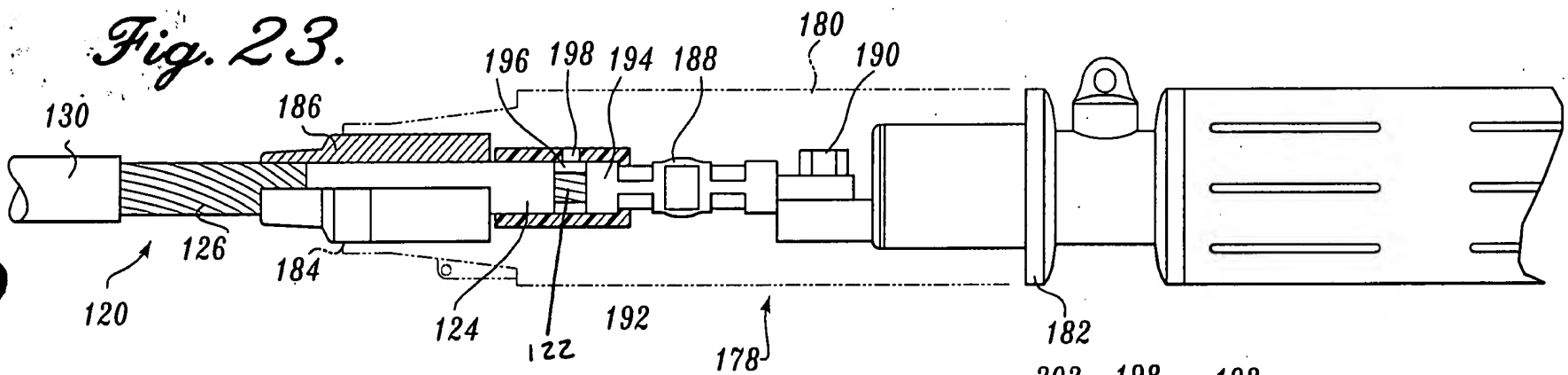

Fig. 24.

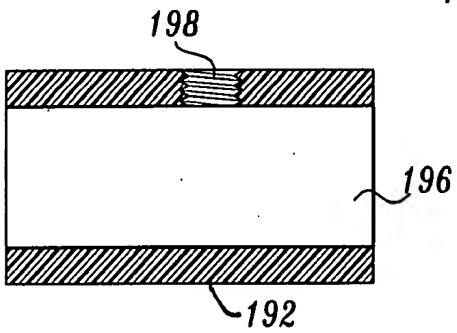

Fig. 26.

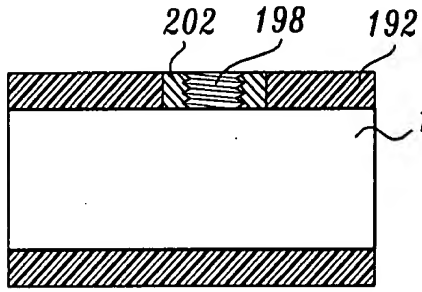

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Fig. 25.

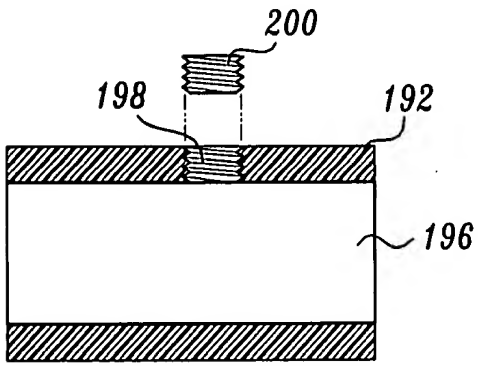

Fig. 27.

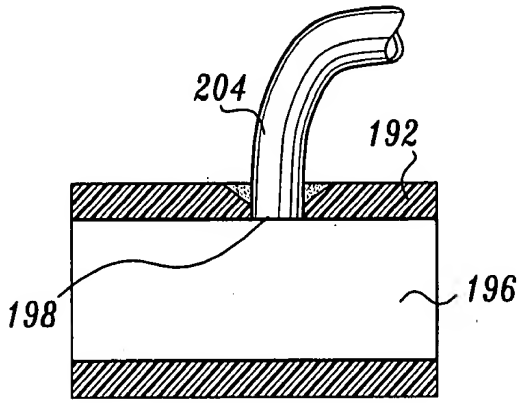

Fig. 28.